

VOLTAGE BOOSTING CIRCUIT AND METHOD OF GENERATING BOOSTING VOLTAGE, CAPABLE OF ALLEVIATING EFFECTS OF HIGH VOLTAGE STRESS

ABSTRACT OF THE DISCLOSURE

5        A voltage boosting circuit and a method of generating a boosting voltage alleviate deterioration of a driver transistor caused by high voltage stress when the level of an external supply voltage is high. The voltage boosting circuit includes boosting capacitors and switches. The boosting capacitors include a first boosting capacitor connected to a driving node and a last boosting capacitor that outputs the boosting voltage. The switches connect 10 the boosting capacitors in series in response to a control signal. The boosting voltage increases or decreases as the voltage level at the driving node changes according to the logic state of a boosting level control signal. The boosting level control signal is responsive to the external supply voltage level. An external supply voltage detector detects the level of external supply voltage level and generates the boosting level control signal.